

REMARKS

Upon entry of the present amendment, the claims will not have been amended. Rather, Applicant respectfully traverses each of the outstanding rejections set forth in the above-mentioned Official Action. Applicant respectfully submits that the disclosures of the references relied upon by the Examiner, whether considered individually or whether considered in any proper combination, are inadequate and insufficient to either anticipate or even to render obvious the combination of features resided in Applicant's claims. Accordingly, Applicant respectfully requests reconsideration of each of the outstanding rejections together with an indication of the allowability of all of the claims pending in the present application, in due course. Such action is respectfully requested and is now believed to be appropriate and proper.

In the outstanding Official Action, the Examiner rejected claims 1, 5, 8, 13 to 16, 19 and 20 under 35 U.S.C. § 102 (e) as being anticipated by EDGAR (U.S. Patent Application Publication No. 2002/0176113). Claims 2-4, 11, and 21 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over EDGAR in view of LUO (U.S. Patent No. 7,031,549). Claims 6, 7, 17, and 18 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over EDGAR in view of KATO (U.S. Patent No. 7,136,100). Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over EDGAR in view of LUO and further in view of KATO. Finally, claim 12 was rejected under 35 U.S.C. § 103 (a) as being unpatentable over EDGAR in view of LUO further in view of KATO and yet further in view of JOGO (U.S. Patent No. 6,940,620).

As noted above, Applicant respectfully traverses each of the above rejections and submits that the disclosures of the applied references are inadequate and insufficient to render unpatentable the various combinations of features recited in each of Applicant's claims.

Applicant's invention is directed to a filtering device as recited in claim 1, a digital camera as recited in claim 13, and a filter processing method as recited in claim 14. Utilizing the filtering device as recited in claim 1 as a non-limiting example of Applicant's invention, the filtering device filters original image data, the original image data having original luminance data and color difference data. The filtering device comprises a generating processor that generates first luminance data and second luminance data such that the original luminance data is separated into the first luminance data and the second luminance data according to a predetermined ratio. A filtering processor filters the second luminance data by a low pass filter so as to transform the second luminance data into third luminance data, while the first luminance data and the color difference data are not low pass filtered. A synthesizing processor synthesizes the first luminance data, the color difference data, and the third luminance data into synthesized image data, wherein the third luminance data defines a blurred luminance image and the synthesized image data comprises a soft focus image in which the color balance of the original image data is preserved.

The above recited features of Applicant's invention, which define an aspect thereof, is not anticipated by EDGAR, nor is it rendered obvious by any proper combination of EDGAR with any of the secondary references of record in the present application.

In setting forth the rejection, the Examiner relies on Figure 8a of EDGAR. In particular, the Examiner asserts that EDGAR discloses a generating processor 800, a filtering processor including the low pass filter 804, and a synthesizing processor in the form of brush 810. However, in spite of the Examiner's characterization of EDGAR with respect to the above noted processors, it is respectfully submitted that the disclosure of EDGAR contradicts explicitly recited features of Applicant's claims.

In particular, in EDGAR, the image data being processed by both the low pass filter 804 as well as by the high pass filter 806, include both color difference data as well as luminance data. Thus, the color difference data, that is included as part of the enhanced image of EDGAR, is obtained by synthesizing the color difference of the original image, the color difference data of the data processed by the high pass filter 806 as well as the color difference data of the data processed by the low pass filter 804.

In direct contrast to the above, according to the teachings of the present invention as reflected in the explicit recitations of claim 1, the color difference data is not low pass filtered. Accordingly, the color difference data of the synthesized image data is the color difference data of the original image, in direct contrast to the disclosure of EDGAR. As a result, according to the features of the present invention and as a result of the recitations contained in claim 1, the color balance of the original image data is preserved in the synthesized image.

Yet further, because, according to the teachings of EDGAR, the enhanced image includes color difference data that has been processed by the low pass filter 804, Edgar cannot achieve a synthesized image data that "comprises a soft focus image in which the

color balance of the original image data is preserved" as explicitly recited in Applicants claim 1.

For each of the above reasons it is respectfully submitted that Applicant's claims are clearly patentable over the disclosure of the EDGAR reference relied upon by the Examiner in the rejection of each of the independent claims and as the primary reference in the rejection of all the other claims.

Applicant additionally notes that the original image in EDGAR includes both the luminance data as well as the color difference data. Accordingly, the luminance data of the enhanced image of EDGAR is produced by adding the first and third luminance data (according to the Examiner's interpretation of Edgar) to the luminance data of the original image. In direct contrast to the above, according to the teachings of the present invention, the luminance data of the synthesized image data is made up of the first luminance data and the third luminance data.

The enhanced image of Edgar includes a soft focus image. However, blurring or softening of the details of the image is not provided in the enhanced image of EDGAR, as explicitly set forth in paragraph [0070]. In particular, the wrinkle reduction process 800 is disclosed to provide an image "without blurring or softening of the details".

In direct contrast to the above, the synthesized image according to the teachings and recitations of the present invention, a soft focus image is included in the synthesized image data.

In view of the differences and distinctions between the disclosure of EDGAR and the recitations of Applicant's claims, Applicant respectfully request reconsideration and withdrawal of each of the outstanding rejections.

The various secondary references relied upon by the Examiner in the rejection of various dependent claims do not contain disclosures are adequate or sufficient to overcome the clear deficiencies of EDGAR. Nor have they even been relied upon by the Examiner to disclose any of these missing features. Accordingly, none of various rejections asserted by the Examiner are based on disclosures or combinations of disclosures that are adequate or sufficient to render unpatentable the combination features recited in each of Applicant's claims. Accordingly, an action to such effect is respectfully requested in due course.

In setting forth the rejection with respect to claim 1, the Examiner asserted that the filtering processor does not low pass filter the color difference data. The Examiner asserted that paragraphs 67 and 68 of EDGAR support this position. However this is incorrect, as is quite clear from paragraph [0067], wherein EDGAR discloses that the dynamic image mask B is passed through low pass filter 804. Since the dynamic image mask includes both the luminance data and the color difference data of the original image, is quite clear that the color difference data is processed through the low pass filter 804. Since paragraph [0068] deals only with the data which the Examiner characterizes as first luminance data, it also does not support the Examiner's position. Accordingly, there is in fact no support for the Examiner's position that, according to EDGAR the color difference data is not low pass filtered.

The Examiner further asserts that paragraph 69 of EDGAR discloses that the synthesized image data comprises a soft focus image in which the color balance of the original image is preserved. This is submitted to be incorrect in spite of the fact that the low pass filter 804 can be a "soft focus" filter.

Paragraph [0069] merely describes the adding of the results from the low pass filter and the high pass filter to obtain the median mask 808 and the further processing to obtain the enhanced image. However, as explicitly set forth in paragraph [0070) and as previously noted, it is a stated objective of EDGAR to reduce wrinkling. In fact, a goal of EDGAR is to improve image detail in a digital image such as to reduce the visible effects of age of the person in the image without sacrificing the minute details of the image and without "apparent blurring or softening of the details". This directly contradicts the explicit recitations of Applicant's claim 1.

Accordingly, Applicant respectfully submit, that neither EDGAR, nor any proper modification of the disclosure of EDGAR in view of any of the second or references, can render unpatentable any of the claims in the present application. Thus, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejection together with an indication of the allowability of all of the claims pending in the present application.

Applicant notes that the status of the present application is after final rejection. Applicant further notes that entry of an amendment is not a matter of right once a final rejection has been issued in an application. Nevertheless, in the present situation, Applicant respectfully submits that entry the present response, reconsideration and withdrawal of the outstanding rejections, and an indication of the allowability of all the claims pending in the present application is appropriate and proper. In particular, the present Response does not amend the claims but merely points out the shortcomings and deficiencies of the references relied upon by the Examiner with respect to the explicitly

recited features of Applicant's claims. Accordingly, entry and consideration of the present reply is respectfully requested, in due course.

SUMMARY AND CONCLUSION

Applicant has made a sincere effort to place the present application in condition for allowance and believes that he has now done so. Applicant has not amended the claims but has pointed out the shortcomings and deficiencies of the disclosures the references relied upon to reject the claims in the outstanding Official Action. In this regard, Applicant has discussed the disclosure of the primary reference relied upon and noted the shortcomings thereof. Applicant has also discussed the recitations of Applicant's claims and has pointed out the deficiencies of the disclosure of the reference applied with respect to such explicit claim recitations. Accordingly, Applicant has provided a clear evidentiary basis supporting the patentability of all the claims in the present application and respectfully requests an indication to such effect in due course.

Should the Examiner have any questions or comments regarding this application or the present paper, the Examiner is respectfully requested to contact the undersigned at the below listed telephone number.

Respectfully submitted,
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